FlyBy Math™ Alignment
2005 Connecticut Mathematics Curriculum Framework

1. ALGEBRAIC REASONING: PATTERNS AND FUNCTIONS: Patterns and functional relationships can be represented and analyzed using a variety of strategies, tools and technologies.

How do patterns and functions help us describe data and physical phenomena and solve a variety of problems?

1.2 Represent and analyze quantitative relationships in a variety of ways.

Performance Standards and Expectations	***FlyBy Math*™ Activities**
a. Represent and analyze mathematical relationships with the help of tables, graphs, equations and inequalities. **(1)** Determine the nature of changes in linear relationships using graphs, tables and equations.	--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system. --Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates.

2. NUMERICAL AND PROPORTIONAL REASONING: Quantitative relationships can be expressed numerically in multiple ways in order to make connections and simplify calculations using a variety of strategies, tools and technologies.

How are quantitative relationships represented by numbers?

2.1 Understand that a variety of numerical representations can be used to describe quantitative relationships.

Performance Standards & Expected Performances	***FlyBy Math*™ Activities**
d. Compare quantities and solve problems using ratios, rates and percents. **(3)** Solve problems involving ratios, proportions and percents.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. --Compare airspace scenarios for both the same and different starting conditions and the same and different rates.

3. GEOMETRY AND MEASUREMENT: Shapes and structures can be analyzed, visualized, measured and transformed using a variety of strategies, tools and technologies.

How do geometric relationships and measurements help us to solve problems and make sense of our world?

3.3 Develop and apply units, systems, formulas and appropriate tools to estimate and measure.

Performance Standards & Expected Performances	***FlyBy Math*™ Activities**
a. Solve problems involving measurement through the use of a variety of tools, techniques and strategies. **(1)** Estimate and determine length, area, volume, mass and angle measures.	--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.

(2) Select and use appropriate units, strategies and tools to measure and solve problems involving length, perimeter, area, volume, capacity, weight, mass, temperature and angles.	